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June 26, 2009

Mrs. Susan M. Hudson, Clerk
Chittenden Bank Building
Vermont Public Service Board
112 State Street - Drawer 20
Montpelier, VT 05620-2701

2009 JUN 26 PM 3:17
VERMONT PUBLIC
SERVICE BOARD

Re: Docket No. 7495
Heating and Process Fuel Efficiency Program

Dear Mrs. Hudson:

The attached document has been written in response to the Public Service Board Order issued in Docket No. 7495 on February 26, 2009. The order held that there is insufficient information regarding the measures and compensation mechanisms selected by the Department and therefore the Board was not fully capable of determining whether these measures and compensation mechanisms promote the public good.

Pursuant to 30 V.S.A. §235(b), the Board has authority to review the measures and compensation mechanisms selected by the Department and to alter or impose conditions on any combination of these programs, measures, or compensation mechanisms as it deems necessary to promote the public good. The attached document addresses the measures and compensation mechanisms that the Board said was missing from the original plan.

Sincerely,

A handwritten signature in black ink that reads "Sarah Holmann" with a stylized flourish at the end.
Sarah Holmann
Director for Public Advocacy

Enclosure

cc: Attached Service List



2009 JUN 26 PM 3: 17

Performance Incentives for CVCAC under RGGI Contract

Goal 1: Average 25% btu savings for thermal and related energy consumption.

Simply stated, Act 92 calls for 25% reduction in energy use. This rather vague requirement presents challenges that the Public Service Board will be confronting in a May 12th workshop, and presumably following-up with a process that may not conclude until the close of 2009. Lacking a clear directive from the Board, CVCAC proposes the performance incentives for the 2009 RGGI contract embrace the 25% broadly, using a variety of existing weatherization program procedures and software to evaluate, track and report savings from thermal efficiency measures.

A percent savings goal requires a starting point and ending point. CVCAC proposes to use the best available thermal fuel histories as the starting point. As part of the application process prospective RGGI participants must agree to a waiver that allows the provider to request a minimum two-year fuel history report from the participants' primary fossil fuel supplier. When other fuels are used as secondary heating fuels or non-fossil primary heating fuels, or if a fuel supplier is unwilling or unable to provide documentation, the historical fuel consumption will be based on participant's records as gathered in the application process or subsequent interview. No participant will be denied services due to poor fuel history documentation or an uncooperative unregulated fuel supplier.

This baseline fuel consumption will be used in the virtual model of the existing and renovated building as generated by one of two excel-based software modeling programs developed by the weatherization agencies; "Hulstrunk" and "Campbell", both named for the weatherization director's that developed the tools. The "Q-loss" modeling software employed by EVT for multi-family structures may also be used. These tools have been used to analyze thousands of Vermont buildings, the results of which have been reviewed and verified in studies by external OEO consultants and the Office of the Vermont State Auditor. "Pre" and "Post" conditions will be tracked and reported using the existing Weatherization Data Management System template, a product developed by the State of Vermont and used for the past decade to track and report WAP activity. Logged pre and post conditions include estimated heat load based on surface-by-surface insulation values, air leakage levels based on blower door testing, and combustion safety and efficiency tests. Post testing also includes worst-case draft testing (a "too-tight" combustion safety test, results of which are noted in the job file but not entered in the database).

Typical shell measures that produce cost effective savings include air sealing: attic by-passes; top plates; plumbing, electrical and chimney penetrations; balloon frame walls; box sills; foundations walls; and a multitude of holes in the top and bottom of a building. Adding or augmenting insulation is also a consistent winner, particularly when wall cavities are un-insulated or poorly insulated. Few attics have the DOE recommend R-49, and most attics with R-39 fiberglass do not achieve anything close

to that level of performance, so attic insulation often pays. Sloped ceilings are notorious for poorly installed insulation, so dense packed cellulose is a cost effective measure to both air seal and increase R-value. Replacing weather stripping is a very common measure, more so than rehabilitating windows; window replacement is almost never cost-effective. Adding rigid foam to cover thermal bridges is becoming more common, particularly when major renovation is occurring on the inside or outside of exterior walls. Finally, every audit includes testing the heating appliance for efficiency and combustion safety. Retirement of inefficiency, outdated or unsafe equipment is screened for cost effectiveness, and typically delivers long-term savings.

Thermal savings will include the reduction in internal gains that are achieved by reducing electrical energy associated with the shell and HVACR plant improvements (savings from reduced use of, or improved efficiency of, pumps, compressors and fans used in HVACR equipment).

Two thirds of the total performance incentive will be based on Goal 1: 25% average savings; savings will be based on btus as derived from the pre and post conditions as evaluated using Hulstruk and Campbell. Performance incentives will become payable on a prorated basis when the average reaches 80% of the goal (20% average savings being 80% of the 25% goal yields a payment of 80% of a segment's performance incentive payment).

Incentives also exist to surpass the 25% average savings goal, prorated up to 120% of each sector's goal (30% savings). In all cases, the total performance incentive will not exceed \$110,000.

2009 RGGI Performance Incentives

		Percent of Full Incentive	Incentive Amount	
Goal 1: 25% Average Energy Savings*		66.7%	\$54,884	
Sector		Percent of Budget	Percent of Full Incentive	
A.	Small Business	8.2%	5.5%	\$6,017
B.	Single Family Structures: 80%-100%	6.0%	4.0%	\$4,431
C.	Single Family Structures: 60%-80%	19.8%	13.2%	\$14,503
D.	MultiFamily Buildings	40.8%	27.2%	\$29,933

Based on analysis using approved methodology, using best available data for previous fuel usage, with post retrofit consumption modeled in approved software and reported in access database.

Goal 2: Number of units completed

CVCAC's proposal included a worksheet that estimated a total number of units completed by segment, based on estimated funding provided by a variety of sources. The current funding environment for these sources is currently in flux in the legislature. Additional changes to the contribution levels of the funders may require adjustment of the units completed goals.

Rules that govern what constitutes one unit will generally follow the existing Vermont Weatherization Assistance Program guidelines, as documented in existing contracts, technical manuals, letter series, and applicable US DOE CFR's. Units and demographic information will be included in and reported with the WDMS database.

One third of the total performance incentive will be based on Goal 2: target number of units completed. Since the December '08 proposal was submitted the overall funding environment has changed. ARRA funds have dramatically increased the OEO weatherization budgets, which are typically the first dollars expended on efficiency in public and non-profit multi-family housing stock. In the single family segment, RGGI funds were budgeted to be leveraged with 2/3 funding from other sources, including loans from the Home Ownership Centers and incentives that may sunset (such as the GMP incentive). Since these funding sources are not under control of the contractor, target goals have been reduced to 80% of the levels presented in the December '08 proposal. Performance incentives will become payable on a prorated basis when the units completed (jobs that are closed with post data recorded in WDMS) reaches 80% of the minimum units by segment (see table). Incentives also exist to exceed the units goals, prorated up to 120% of each sector's goal. In all cases, the total performance incentive under this contract is not to exceed \$110,000.

		Percent of Full Incentive		Incentive Amount
Goal 2: Units Completed		80%	33.3%	\$36,674
		Target Units, Proposal*	Minimum Units	Percent of Goal Incentive
E.	Small Business	61	49	5.8%
F.	Single Family Structures: 80%-100%	80	64	7.7%
G.	Single Family Structures: 60%-80%	300	240	28.8%
H.	MultiFamily Buildings	602	482	57.7%
			834	100.0%
* subject to renegotiation should RGGI, WAP and HomeOwnership funding levels deviate from proposal				

All performance incentives are payable on a pro-rated basis from 80% to 120% of each individual goal, with a not-to-exceed amount for the total performance incentive of \$110,000.

PSB Docket No. 7495 - SERVICE LIST

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